REMARKS/ARGUMENTS

Reconsideration and allowance of the subject patent application is respectfully requested. Claims 4-13 are pending. Elected claims 6-13 (Group II) are currently under consideration.

The rejection of claims 6-13 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Correia et al. (U.S. Patent 5,662,160) in view of Koch et al. (U.S. Patent 4,913,217) is respectfully traversed.

Correia et al. ('160) disclose a method of investment casting a turbine nozzle, including an external shell and an internal core component, that permits producing an airfoil fillet wall of relatively consistent thickness by using a casting arrangement having similar external shell material on both (opposite) sides of the wax form portion forming the fillet. However, as recognized by the Examiner in the Office Action at page 3, Correia et al. fails to teach or suggest the use of an internal core assembly that results in the production of a datum structure or one or more datum pads on a cast article, as set forth by Applicants' claims.

The Koch et al. ('217) reference is applied in the Office Action as allegedly teaching "the use of datum regions (groove space 95) provided in the surface of the free-floating core for the purpose of effectively providing datum information and reinforcing pad (rib) when molten metal fills the datum regions (groove space) of the free-floating ceramic core." (1/24/07 Official Action at page 3, lines 7-10.)

Applicants respectfully disagree with the above characterization of Koch et al.'s groove space 95 as a datum region. The '217 Koch et al. patent is directed toward providing locator pins positioning an expendable core within a casting die cavity. (See, e.g., '217 patent Abstract and Figures I-IV.) There is no disclosure or discussion in Koch et al. of the disclosed "groove space" as being "datum regions". Although, Koch et al. does teach that "the printout portion 46'

of the core 40' shown in FIGS. X and XI may be provided with grooves 99 to form ribs or thicker skin portions in and around the printout portions 46' of the core 40', instead of by grooves 95 in the die part 20 shown in FIGS. VIII and IX", applicants respectfully contend that groove space 95 or, for that matter, any rib or ribs produced on the resultant cast article by grooves 99 provided on the printout portion of core piece 40' do not result in the production of a "datum pad" on the cast article – nor can such a rib or ribs function as a datum pad or its functional equivalent. Applicants respectfully point out that, as conventionally understood in the art, a datum pad formed on an object is used for the purpose of serving *as a reference point* for establishing a spatial orientation of the object and/or the position and spatial orientation of various physical features of the object with respect to that reference point. It would not be feasible or practical to use a reinforcement rib as a datum pad reference point (at least if no other reason than because it is an elongated feature formed across the surface of the article and therefore could not serve as a reference point in the direction of its length). Moreover, there is no teaching or even a remote suggestion anywhere in the Koch et al. patent to use the rib/ribs as a datum pad. The ribs formed by Koch et al. are provided solely "for further reinforcing the skull or shell of molten metal or aluminum that forms over the whole outer surface of the printout portions of the core", i.e., for providing added strength or reinforcement to the resultant cast article. (See '217 patent at col. 7, lines 13-16.)

The Office Action fails to cite prior art that remedy the deficiency of Correia et al. as set forth above or to suggest any motivation to modify Correia et al. to arrive at Applicants' claimed method and apparatus. There is no objective teaching or disclosure anywhere in Koch et al. ('217) for modifying the internal core piece (128) of Correia et al. ('160) to provide a core-produced print-out geometric reference system of one or more datum pads on a cast article.

In addition to the reasons set forth above, Applicants' dependent claims 7-9, 12 and 13, which depend from independent claims 6, 10 or 11, set forth additional features which further distinguish Applicants' claims over the Correia et al. and Koch et al. references.

For at least the same reasons as set forth above, the Correia et al. and Koch et al. references would not anticipate nor render obvious Applicants' previously restricted claims 4 and 5.

Consequently, in view of the Applicants' foregoing amendments and remarks, it is believed that all claims in the application including applicants' previously restricted apparatus claims 4 and 5 (although not presently under consideration) are in condition for allowance. Applicants respectfully request favorable reconsideration and allowance of all claims in the application including previously restricted apparatus claims 4 and 5. If any small manner remains outstanding, the Examiner is encouraged to telephone Applicants' representative at the telephone number listed below.

Respectfully submitted,

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